

RESEARCH DEPARTMENT

**PONTYPRIDD U.H.F. RELAY STATION : SUMMARY OF INSTALLATION**

Technological Report No. RA-3/13  
UDC 621.396.712 1967/56

G.H. Millard, B.Sc., A.Inst.P.

  
for Head of Research Department

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U.H.F. RELAY STATIONS : SUMMARY OF INSTALLATION

NAME: 106.5 PONTYPRIDD

TYPE: (1) 3  
(2) 2

TRANSMISSIONS COMMENCED: 2.10.67 (TRADE) 16.10.67 (SERVICE)

SITE DATA

LOCATION: Golf Club

GRID REFERENCE: ST 085905

HEIGHT, a.o.d. : 197 m (645 ft)

SUPPORT MAST

TYPE: 46 m (150 ft) Tower

OVERALL HEIGHT: 56 m (185 ft)

FREQUENCIES

BAND: IV

CHANNELS: 22 (BBC-1), 25  
28 (BBC-2), 32

RECEPTION

PARENT: Wenvoe

CHANNELS: 41, 44 (BBC-1)  
47, 51 (BBC-2)

POLARIZATION: Horizontal

AERIALS: 2 x 4λ Troughs

AERIAL HEIGHTS: 23 m (75 ft) a.g.l.  
26 m (85 ft) a.g.l.

TRANSMITTERS

TYPE: (1) TWT 50 W  
(2) TWT 200 W

OPERATING POWER:  
(1) 43 W  
(2) 170 W

TRANSMITTING AERIAL

TYPE: Standard Cardioid

RADIATING LENGTH: 16λ

H.R.P. : Fig. 1

V.R.P. : Fig. 2

MEAN HEIGHT: 50.8 m (166 ft 6 in.)

FEEDERS

TRANSMITTING: HF 1<sup>5</sup>/<sub>8</sub>

RECEIVING: BICC T3319

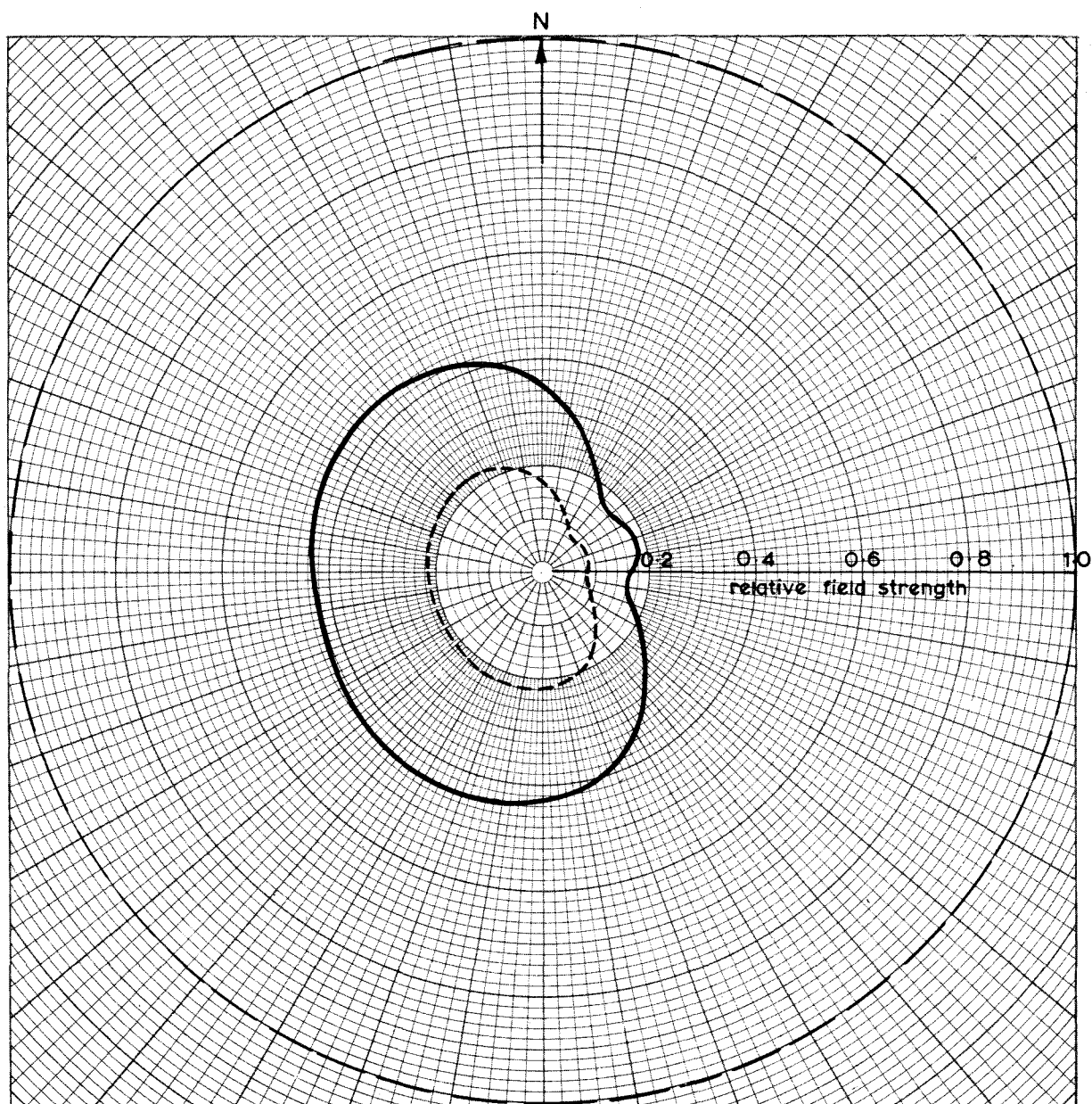
RADIATION CHARACTERISTICS

POLARIZATION: Vertical

MEAN E.R.P. : (1) 0.32 kW  
(2) 1.3 kW

MAXIMUM E.R.P. : (1) 0.5 kW  
(2) 2.0 kW

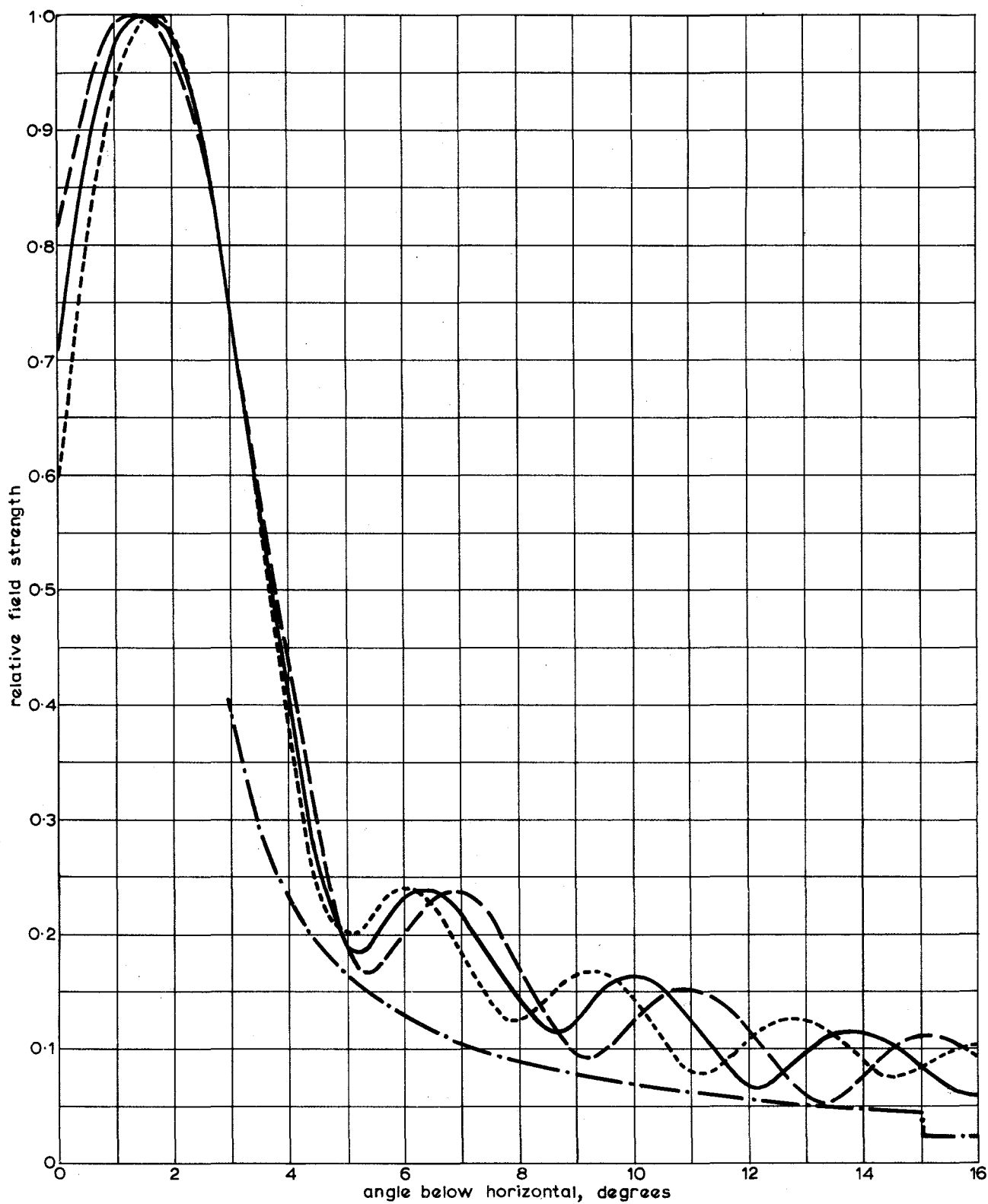
NOTES: (1) Initial operation  
(2) Power increase when Station 149 Hereford opens.



# PONTYPRIDD

Fig. 1. Horizontal radiation pattern.  
VERTICAL POLARIZATION

- Transmitter power: 0.043kW  
Mean E.R.P.: 0.32kW
  - Transmitter power: 0.170kW  
Mean E.R.P.: 1.3kW
  - — — — Stockholm E.R.P. limit
- Unit field corresponds to an E.R.P. of 10kW



PONTYPRIDD

Fig. 2. Vertical radiation pattern

— — — — — 475 MHz  
 — — — — — 528 MHz  
 - - - - - 580 MHz

- . - . - . - Specified minimum field.